

Figure 1. Map of the Middle Rio Grande Valley

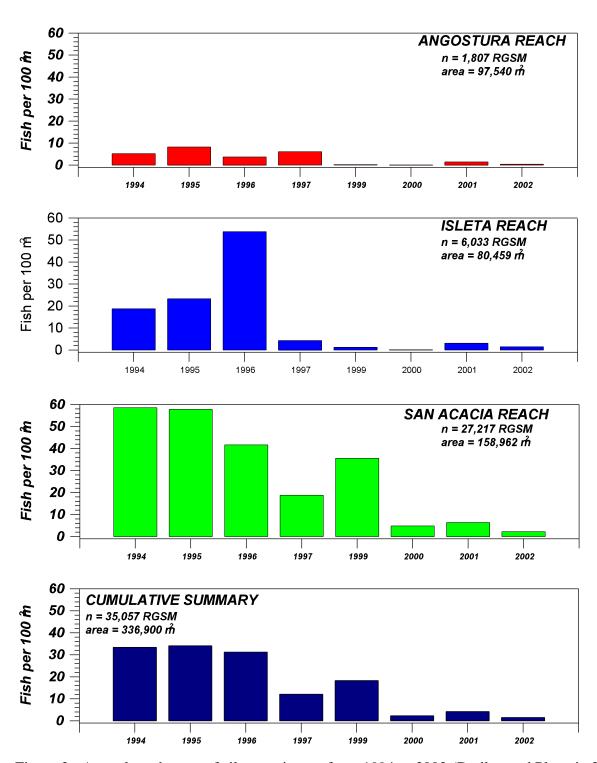


Figure 2. Annual catch rates of silvery minnow from 1994 to 2002 (Dudley and Platania 2002).

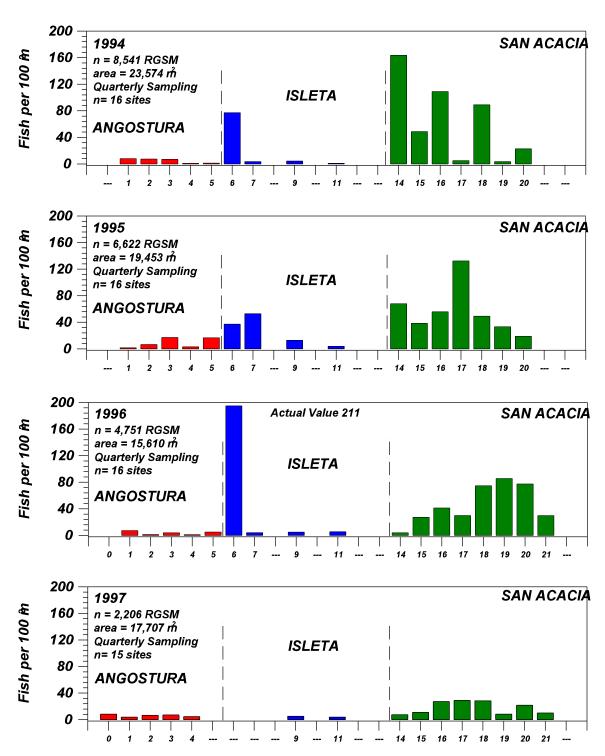


Figure 3. Cumulative annual silvery minnow catch rates by reach from 1994 to 2002. High catch rate at site 6 in 1996 was caused by confinement of fish in isolated pools (Dudley and Platania 2002).

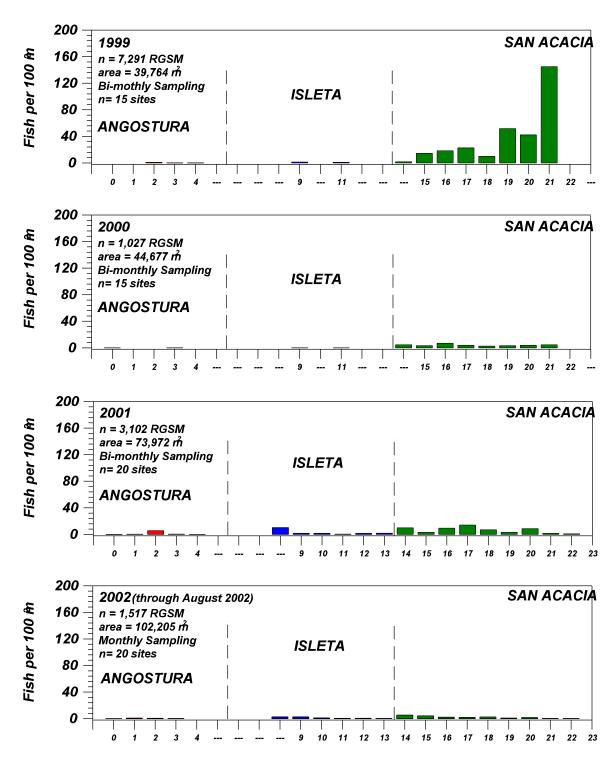


Figure 3 Continued. Cumulative annual silvery minnow catch rates by reach from 1994 to 2002. High catch rate at site 6 in 1996 was caused by confinement of fish in isolated pools (Dudley and Platania 2002).

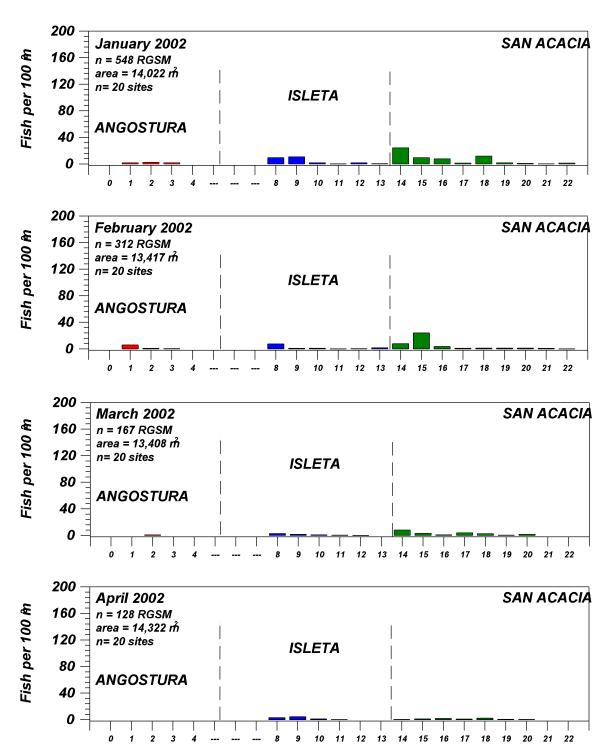


Figure 4. Silvery minnow catch rates by month and reach during 2002 (Dudley and Platania 2002).

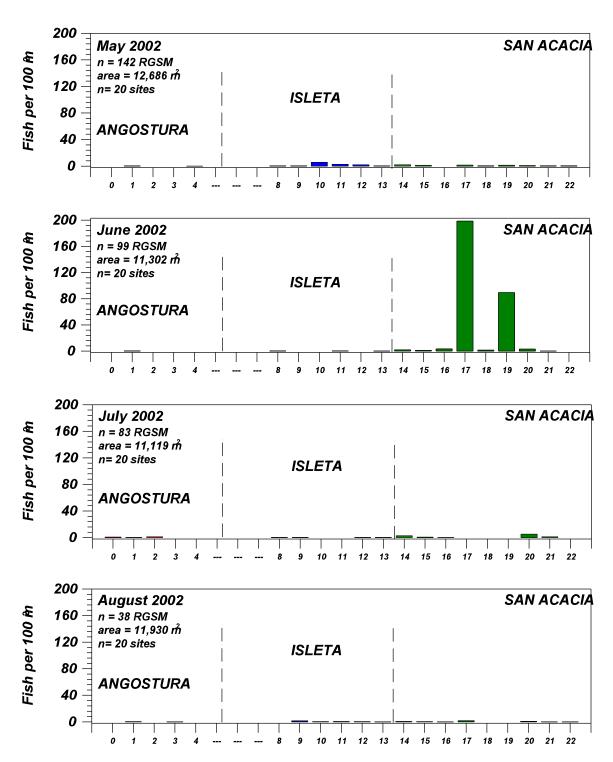


Figure 4 Continued. Silvery minnow catch rates by month and reach during 2002 (Dudley and Platania 2002).

Monthly Maximum Concentration of Total Residual Chlorine in City of Albuquerque's Waste Water Treatment Plant Effluent January 1998-February 2003

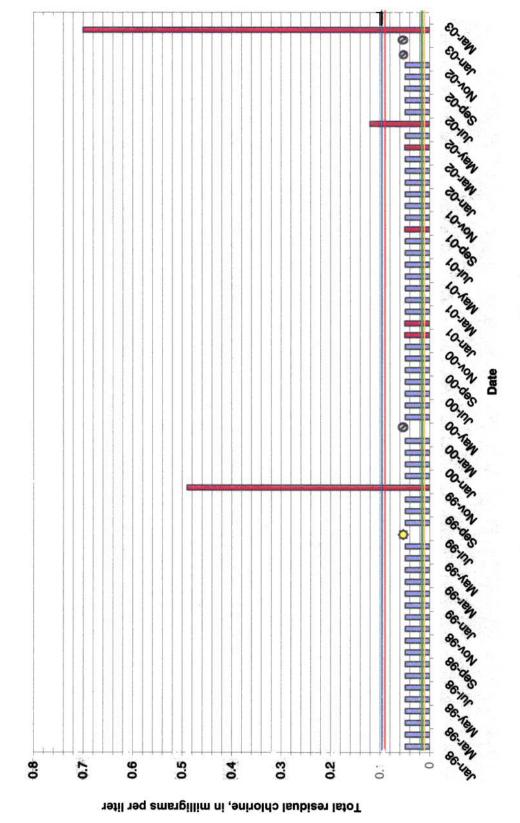


Figure 5. Monthly maximum concentrations of total residual chlorine in City of Albuquerque's Waste Water Treatment Plant effluent - January 1998-February 2003.

Reported concentration for total residual chlorine; concentration is greater than or equal to the reporting limit of 0.05 mg/L.

Reported concentration is zero; no reporting limit was reported.

Analysis not conducted or data not yet posted on website.

The Rio Grande silvery minnow 96 hour EC50 concentration of total chlorine residual is 0.087 mg/L (Buhl, 2002). Permitted concentration based on U.S. Environmental Protection Agency 0.099 mg/L reporting limit.

Protective concentration for total residual chlorine concentration is 0.0126 mg/L to protect the Rio Grande silvery minnow. This is calculated as:

0.0126 mg/L 11 $= 0.126 \, \text{mg/L}$ Geometric mean LC50 for Rio Grande silvery minnow

Geometric mean LC50 for Rio Grande silvery minnow is 0.126 mg/L (Buhl, 2002). The chronic criteria for a toxic pollutant which does not bioaccumulate is 10 percent of the calculated geometric mean LC50 value (New Mexico Water Quality Commission, 2000, 20 NMAC 6.1, section 1105.F.2).

The New Mexico chronic and acute standards for total residual chlorine that apply to surface-water fisheries is 0.01 and 0.019 mg/L, respectively (New Mexico Water Quality Control Commission, 2000, 20 NMAC 6.1 section 3101 J).

NOTE: The reporting limit for the analytical results reported by the City of Albuquerque is 0.05 mg/L which is more than 2.5 times the New Mexico acute and chronic standards of 0.019 and 0.011 mg/L, respectively.

Data source: U.S. Environmental Protection Agency, Water Discharge Permits, Detailed Reports, City of Albuquerque WWTP#2, NPDES Permit NM0022250 (http://oaspub.epa.gov/enviro/pcs_det_reorts.detail_report?npdesid=NM0022250)

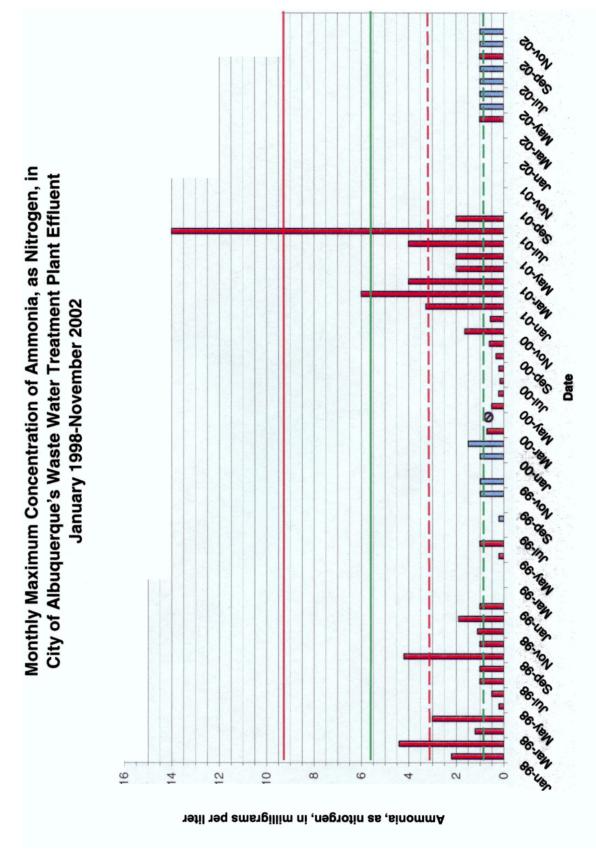


Figure 6. Monthly maximum concentrations of ammonia, as nitrogen, in City of Albuquerque's Waste Water Treatment Plant Effluent, January 1998-November 2002

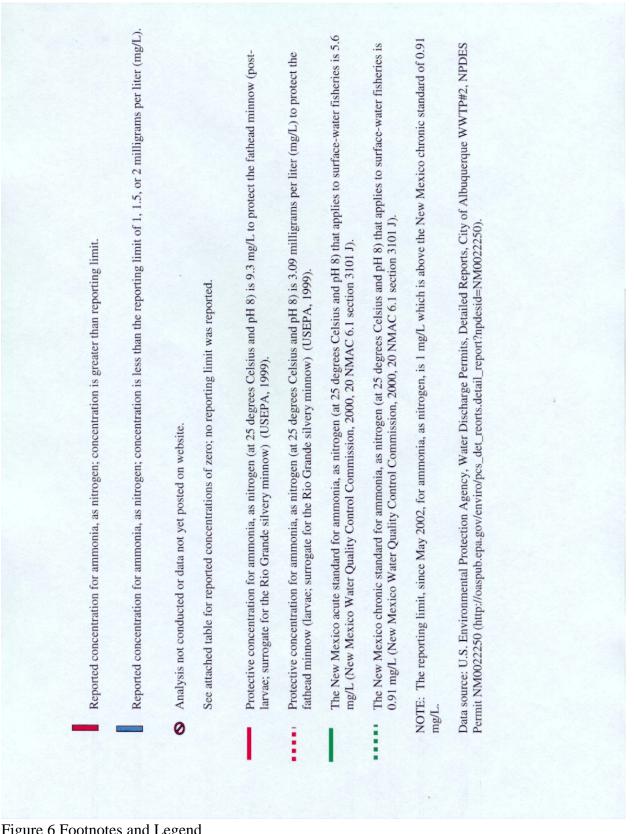


Figure 6 Footnotes and Legend